

REMARKS

This Amendment is in response to the Office Action mailed August 3, 2007. New Claims 22 and 23 have been added. Claims 16 and 20 have been amended. Accordingly, Claims 11 and 14-23 remain pending. Reconsideration is respectfully requested.

New Claims 22 and 23 relate to a surgical implant that includes a binary single phase titanium alloy. The alloy has, among other limitations, a zirconium content of less than 19% by weight and more than 10% by weight.

Claims 16 and 20 have been amended to relate to a process for producing a surgical implant. The process includes incorporating an alloy having, among other limitations, a zirconium content of less than 19% by weight and more than 10% by weight.

Support for new Claims 22 and 23, and the amendments to Claims 16 and 20 can be found throughout the application. For example, the Field of the Invention on page 1 of the specification indicates that the present invention relates to an alloy for the production of various surgical implants.

In the pending Office Action, Claims 11, 14-15, 17-19 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over GB 1,305,879 (GB'879). In addition, Claims 11 and 14-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over GB'879 in view of Chem. Ab. No. 103239 and Davidson (U.S. 5,169,597).

The examiner asserts that GB'879 is drawn to a binary Ti-Zr alloy and that the amount of Zr is directly related to the strength achieved. The examiner also asserts that, because GB'879 teaches examples of alloys with increasing levels of Zr, it would have been obvious to one of ordinary skill in the art to select the desired range of Zr.

However, GB'879 would not make the pending claims obvious because one skilled in the art reviewing GB'879 would not use an alloy with a zirconium content of less than 19% in an implant as claimed.

The table in GB'879 does not disclose alloys for use in implants. Rather, the table in GB'879 merely provides "properties" of various alloys. GB'879 further states that the "properties" are important with regard to using the alloy in an implant. However, GB'879 does not disclose using all of the various alloys disclosed in the table in an implant.

In the context of surgical or dental implants, GB '879 only discloses an alloy with a zirconium content of between 25% and 75%.

Consistent with this disclosure, the table in GB '879 discloses that an alloy of Ti15Zr would have a strength of only 70 kg/mm², which is equal to only 686MPa. This figure is significantly less than the claimed tensile strength of at least 769 MPa, which corresponds to 78.438 kg/mm².

In view of GB'879, one skilled in the art would believe that an alloy having less than 19 weight % of zirconium would not have the adequate tensile strength necessary for an implant. Applicants note that Claims 14 and 23 further define the alloy for the surgical implant having 14-15% by weight.

A prior art reference must be considered in its entirety, including those portions that would lead away from the claimed invention. MPEP § 2141.02. One skilled in the art reading GB'879 would use at least Ti25Zr, more preferably, Ti35Zr and most preferably Ti50Zr for use in a surgical implant as claimed. These percentages are significantly higher than the more than 10% and less than 19% range set forth in the claims. Therefore, withdrawal of the obviousness rejections is respectfully requested.

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Accordingly, Applicant respectfully submits that the application is now in proper form for allowance, which action is earnestly solicited. If resolution of any remaining issue is required prior to allowance of the application, it is respectfully requested that the Examiner contact Applicant's attorney at the telephone provided below.

Respectfully submitted,

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